WHAT IS CLAIMED IS:

1. A screen pipe for distributing fibrous material, comprising: a cylindrical screen jacket rotatable about its longitudinal axis, the wall of said jacket including:

(a) one or more slots which completely penetrate the jacket through which the fibrous material may penetrate;

(b) a first groove located downstream and adjacent to the slot, relative to the direction of rotation of the screen jacket, wherein the edge of said first groove forms an angle with the tangent of the screen jacket of between 100° and 160°; and

(c) a second groove located upstream and adjacent to the slot, relative to the direction of rotation of the screen jacket, wherein the edge of said second groove forms an angle with the tangent of the screen jacket of between 70° and 110°.

2. The screen pipe of claim 1 further comprising one or more components selected from the group consisting of:

(a) a feed pipe through which fibrous material is injected into the screen pipe;

(b) rotatable brush rollers which are affixed to a cylinder inside the screen pipe; and

(c) a blade wheel which is affixed to a cylinder inside the screen pipe.

3. A screen pipe according to claim 1, wherein the edges of the profiled grooves are substantially straight.

4. A screen pipe according to claim 1, wherein the edges of the profiled grooves are curved, and the angle of the groove edges to the jacket tangent is thus determined by a line segment that connects the edge of the groove with the edge of the hole or slot situated at the bottom of the groove nearest to said edge of the groove.

5. An apparatus for the dry forming of web material comprising two screen pipes of claim 1 wherein the screen pipes are oriented at 180° angles to each other.

6. A method of operation of the screen pipe of claim 1 wherein the screen jacket is not rotated during its operation.

7. A screen pipe for distributing fibrous material from said screen pipe comprising a cylindrical screen jacket including;

(a) one or more slots which completely penetrate the jacket through which the fibrous material may penetrate;

(b) a first groove located upstream and adjacent to the slot, relative to the direction of rotation of the fibrous material, wherein the edge of the groove which faces the slot forms an angle with the tangent of the screen jacket between 100° and 160°;

(c) a second groove located downstream and adjacent to the slot, relative to the direction of rotation of the fibrous material wherein the edge of the groove which faces the slot forms an angle with the tangent of the screen jacket between 70° and 110°; and

(d) means capable of causing the rotation of fibrous material about the axis of the screen jacket.

8. The screen pipe of claim 7 further comprising one or more components selected from the group consisting of:

(a) a feed pipe through which fibrous material is injected into the screen pipe;

(b) rotatable brush rollers which are affixed to a cylinder inside the screen pipe; and

(c) a blade wheel which is affixed to a cylinder inside the screen pipe.

9. A screen pipe according to claim 7, wherein the edges of the profiled grooves are substantially straight.

10. A screen pipe according to claim 7, wherein the edges of the profiled grooves are curved, and the angle of the groove edges to the jacket tangent is thus determined by a line segment that connects the edge of the groove with the edge of the hole or slot situated at the bottom of the groove nearest to said edge of the groove.

11. An apparatus for the dry forming of web material comprising two screen pipes of claim 7 wherein the screen pipes are oriented at 180° angles to each other.

12. A screen pipe to be used in dry forming of web material in order to distribute fiber material (3) blown into the screen pipe (1) through a jacket (2) of the pipe onto a wire arranged to move under the pipe, the fiber material provided inside the screen pipe (1) being made to move for example by means of a spiked roll (4) placed inside the pipe, so that the movement of the fiber material has both a radial and a tangential component with respect to the jacket (2) of the screen pipe, which jacket comprises on its inner surface profiled grooves (8) in the pipe's axial direction, the edge (8a) of the profiled groove that is situated downstream with respect to the tangential component of the fiber flow and the upstream edge (8b) of the groove being positioned at different angels to said tangential component, and the bottoms of the profiled grooves comprising holes or slots (9) via which the fibers are discharged from the screen pipe (1), characterized in that the downstream edge (8a) of the profiled groove is at a more acute angle to the tangential component of the fiber material flow than the upstream edge (8b).

13. A screen pipe according to claim 12, characterized in that the angle of the downstream edge (8a) of the profiled groove to the jacket tangent is approximately between 70° and 110°, preferably about 90°, and the angle of the upstream edge (8b) of the profiled groove to the jacket tangent is about 100° to 160°, preferably about 130°.

14. A screen pipe according to claim 12, wherein the edges of the profiled grooves are substantially straight.

15. A screen pipe according to claim 12, wherein the edges of the profiled grooves are curved, and the angle of the groove edges to the jacket tangent is thus determined by a line segment that connects the edge of the groove with the edge of the hole or slot (9) situated at the bottom of the groove nearest to said edge of the groove.

16. A screen pipe for distributing fibrous material, comprising: a cylindrical screen jacket rotatable about its longitudinal axis, the wall of said jacket including:

(a) a linear array of two or more slots extending along the longitudinal axis of the screen jacket completely penetrating the jacket through which the fibrous material may penetrate;

(b) a first groove extending parallel to the linear array of slots and located downstream and adjacent to the linear array of slots, relative to the direction of rotation of the screen jacket, wherein the edge of said first groove forms an angle with the tangent of the screen jacket of between 100° and 160°; and

(c) a second groove extending parallel to the linear array of slots and located upstream and adjacent to the slot, relative to the direction of rotation of the screen jacket, wherein the edge of said second groove forms an angle with the tangent of the screen jacket of between 70° and 110°.

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